

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

---



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,114	11/05/2001	Hung T. Nguyen	01-633	6984
24319	7590	08/06/2004	EXAMINER	
LSI LOGIC CORPORATION 1621 BARBER LANE MS: D-106 LEGAL MILPITAS, CA 95035			MEONSKE, TONIA L	
			ART UNIT	PAPER NUMBER
			2183	

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/993,114

Applicant(s)

NGUYEN ET AL.

Examiner

Tonia L Meonske

Art Unit

2183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawings filed on November 5, 2001 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftperson's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

### *Specification*

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Arora, US Patent 6,115,808.

5. Referring to claim 1, Arora has taught for use in a wide-issue processor, a mechanism for conditionally executing instructions, comprising:

a. a conditional execution block state machine that tags and generates link pointers for instructions located in a conditional execution block (Figure 1, predicate status vector tag values, column 2, lines 6-17 and lines 32-44, column 4, lines 3-13); and

Art Unit: 2183

- b. conditional link pointer registers, associated with stages in a pipeline of said processor, that contain and cause said link pointers to move therethrough as said instructions located in said conditional execution block move through stages (Figure 1, column 2, lines 32-45, column 3, lines 9-37, column 4, lines 27-57, column 9, line 9-column 6, lines 10, Predicate status vector tag values are stored in registers in memory.).
6. Referring to claim 2, Arora has taught the mechanism as recited in Claim 1, as described above, and further comprising a conditional execution marking queue, associated with said conditional execution block state machine, that contains ones of said link pointers prior to storage in said conditional link pointer registers (Figure 1, Element 100 is the conditional execution marking queue. The queue contains link pointers prior to new and updated link pointers being stored in the predicate vector.).
7. Referring to claim 3, Arora has taught the mechanism as recited in Claim 2, as described above, and wherein said conditional execution marking queue is a five-bit, six-entry queue (column 4, lines 57-67) and comprises a reordering multiplexer (column 4, lines 57-67).
8. Referring to claim 4, Arora has taught the mechanism as recited in Claim 1, as described above, and further comprising a conditional execution attribute register, associated with a group stage of said pipeline, that contains an attribute associated with one of said conditional instructions (Figure 1, element 101, Predicate Mask Vector, column 5, lines 9-45).
9. Referring to claim 5, Arora has taught the mechanism as recited in Claim 4, as described above, and where said conditional execution attribute register is a seven-bit register (Column 5, lines 16-24).

Art Unit: 2183

10. Referring to claim 6, Arora has taught the mechanism as recited in Claim 4, as described above, and further comprising a conditional execution attribute queue that contains attributes read from said conditional execution attribute register (Figure 1, element 101, The predicate mask vector contains attributes that are eventually read from the individual predicate mask registers, p0, p1, ..., and input to element 102 in order to produce the hazard/no hazard signals.).
11. Referring to claim 7, Arora has taught the mechanism as recited in Claim 6, as described above, and wherein said conditional execution attribute queue is of variable depth (Column 5, lines 16-20) and comprises a selecting multiplexer (column 5, lines 9-45).
12. Claims 8 and 15 do not recite limitations above the claimed invention set forth in claim 1 and is therefore rejected for the same reasons set forth in the rejection of claim 1 above.
13. Claims 9 and 16 do not recite limitations above the claimed invention set forth in claim 2 and is therefore rejected for the same reasons set forth in the rejection of claim 2 above.
14. Claims 10 and 17 do not recite limitations above the claimed invention set forth in claim 3 and is therefore rejected for the same reasons set forth in the rejection of claim 3 above.
15. Claims 11 and 18 do not recite limitations above the claimed invention set forth in claim 4 and is therefore rejected for the same reasons set forth in the rejection of claim 4 above.
16. Claims 12 and 19 do not recite limitations above the claimed invention set forth in claim 5 and is therefore rejected for the same reasons set forth in the rejection of claim 5 above.
17. Claims 13 and 20 do not recite limitations above the claimed invention set forth in claim 6 and is therefore rejected for the same reasons set forth in the rejection of claim 6 above.
18. Claims 14 and 21 do not recite limitations above the claimed invention set forth in claim 7 and is therefore rejected for the same reasons set forth in the rejection of claim 7 above.

Art Unit: 2183

***Conclusion***


19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tonia L Meonske whose telephone number is (703) 305-3993.

The examiner can normally be reached on Monday-Friday, 8-4:30.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie P Chan can be reached on (703) 305-9712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tlm

  
RICHARD L. ELLIS  
PRIMARY EXAMINER